WARPED VINYL MKII
analog vibrato / chorus

CHASEBLISS AUDIO
DIGITAL BRAIN. ANALOG HEART.

# WARPED VINYL mkII INSTRUCTIONS

**OVERVIEW:** *Ooey-gooey-analog goodness, revisited*. Originally conceived to simulate the effect of a warped vinyl record, but that is only scratching the surface of what Warped Vinyl mkII can do. This "true pitch" analog vibrato/chorus pedal features an all-analog signal path that can be dialed in to create limitless palette of vibrato and chorus. Warped Vinyl mkII has several changes, including a tone knob for shimmery, transparent vibrato/ chorus as well as an increased signal to noise ratio. Further, every knob and switch is connected to a little digital brain while your guitar signal stays 100% analog the entire time and *never* gets digitally processed. Since the *control* of the effect is digital, it opens up unprecedented effects and features that have never been heard or offered in analog stompboxes.

**TONE (RAMP):** Simply put, this is a magical knob. When you don't have any dip switches assigned for ramping, this knob functions as a tone knob for the pitch-bending vibrato side on the pedal, it doesn't affect the dry signal on the mix control. All the way clockwise is transparent and shimmery, and all the way counter-clockwise is dark and murky. Due to the digital *control* of this pedal, you can set this knob to control any of the five parameters individually or simultaneously (volume, mix, rpm, depth, warp) and have it either modulate or ramp-and-hold (rise or fall) via dip switches in the back of the pedal. Essentially, this knob controls the ramp *time* in which this takes place. You can even make a tremolo effect by choosing to modulate the volume knob.

**VOLUME:** Sets the level of the effect. This pedal has an internal voltage doubler and a nice JFET boost in it (that has some nice amp like distortion if pushed hard), so there is some boost and headroom on tap. Of course, the ramp knob or an expression pedal can control this knob. So, hey, it could be a volume pedal too; in fact, the elements used for this are the same as audiophile-grade attenuators used in hi-fi set ups.

**MIX:** Dial this in for 100% wet effect, 100% dry, or anything in-between. Parking this somewhere in the middle introduces chorus. Make sure to play with the tone knob as you dial this in as they are pretty interactive when it comes to chorus tones.

**RPM:** This controls the rate of the vibrato. This control can be over-ridden by the tap tempo switch.

**1 – 2 – 4 (3 – 6 – 8) Toggle:** This controls the tap division for tap tempo. A dip switch in the back of the pedal lets you access the "3 – 6 – 8" divisions if you so desire. You can also select tap divisions for the RPM or for ramping parameters dependent on where the "tap control" dip switch is set. Note that divisions are 2x slower for ramping.

**DEPTH:** This controls how wide the vibrato goes. Crank it clockwise for insane, pitch-bending modulation. In fact, mkII has a wider, crazer vibrato range than mkI, so enjoy that.

**WARP:** This controls the center point of the modulation. Crank it to counterclockwise, the wave is going to ramp up quickly and ramp down gradually. If you crank it clockwise, the wave will ramp up gradually and ramp down quickly. If this knob is straight up and down at 12:00 it will give a perfectly symmetric wave.

**Left Wave Shape Toggle**: This controls the shape of the first half of the wave modulation. Left for sine, middle for triangle, and right for square.

**Right Wave Shape Toggle**: This controls the shape of the second half of the wave modulation. Left for square, middle for triangle, and right for sine.

*The depth, warp, and wave shape toggles comprise the ModuShape™ engine, which give unprecedented control over the shape of your modulation.*

**Bypass Stomp:** Activates or bypasses the effect. This can be changed to a momentary bypass via a dip switch in the back of the pedal if it is desired. This pedal is "True Bypass" via a relay, and is extremely quiet.

**Tap Stomp:** Sets tap tempo, always honors the last two stomps.

**Lower Toggle:** This switch recalls presets. The right position recalls one preset, the left position recalls a different preset. The middle position will always reflect wherever the knob positions, toggle positions, and dip switch positions are currently at. In order to save to the right preset slot, you hold down the right stomp (bypass) for 3 seconds and then hold down both stomp switches simultaneously for another 3 seconds. The LED blinks and your setting is saved. For the left slot, you do the same thing but hold the left stomp (tap) first. If you recall a preset, and move a knob, you will notice that the LED above the toggle goes dim. This is to signify that something has changed on the preset. If you want to save this change in the preset, you will have to save it again.

**IN:** ¼" mono input jack.

**OUT:** ¼" mono output jack.

**EXP / CV:** ¼" TRS jack for expression pedal (parameter selectable via dip switch in the back of the pedal. Tip goes to wiper, and we recommend Mission expression pedals (EP-1 or EP-25k). Can also be used to for 0-5V Control Voltage (CV) on tip – the ring should be left floating in this case. There are many expression pedals that work with Chase Bliss Audio products, the Mission stuff just happens to be what we have here.

**TAP / MIDI:** ¼" TRS jack. This can be used as a tap input or output with a regular ¼" instrument cable. In addition, it can be used to interface the pedal with an Empress Effects Midibox. Much more information on this in the MIDI section of this manual (at the end).

**Power & Other Info**: This pedal consumes ~25mA and should be operated with an alkaline 9V battery or a standard 2.1mm 9V DC center negative adapter. We recommend Voodoo Labs Pedal Power. Input impedance of this device is 1M, and output impedance is less than 1k.

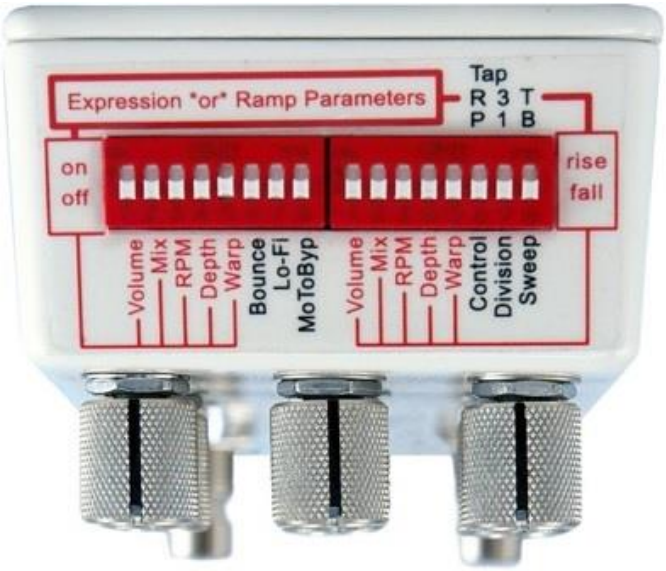
**Expression / CV Control & Dip Switches:**
The Volume, Mix, RPM, Depth, and Warp dip switches in the left bank allow you to control parameters via ramping or an Expression Pedal / CV. Whenever you plug a ¼" in to the EXP / CV jack, the pedal automatically knows that you will be controlling parameters via expression or CV, *not* ramping.

**Direct Control of Waveform with Expression / CV:**
If you have something plugged in to the EXP / CV jack, but do *not* have any parameters selected via dip switch, you are allowed to control the waveform directly. For Warped Vinyl, this equates to an analog "whammy" type of effect. The range of this effect can be limited by the position of the Depth knob. For a maximum sweep, set the depth knob to its full clockwise position.

**Setting Expression / CV Range:**
The range of the expression / CV is controlled by the parameter knob position and the "sweep" dip switch. For example, if you wanted an expression pedal to control the volume parameter from zero volume to unity gain, you would make sure the "sweep" dip switch is in the bottom position and set the volume knob at unity gain. If you need more volume you simply turn the volume knob up slightly. This will increase the maximum range of the expression pedal. This allows you to control multiple parameters with an expression pedal, but you can fine tune the range that you want for each parameter.

On the following page is a diagram and explanation of all the dip switches. When you save a preset, all of this information gets saved. The parameters in **red** below correspond to the ramp function *or* an expression pedal (if one is plugged in).

**Understanding the DIP Switches:**




A very important thing to remember is that ramping always gets reset when bypassing. The parameters' current knob position control where the parameters ultimately will either start or stop ramping.

*The Volume, Mix, RPM, Depth, and Warp* dip switches on the left side simply turn that parameter on or off for ramping or expression / CV capability.

*Volume, Mix, RPM, Depth, and Warp* dip switches on the right side control whether or not the parameters will rise (go clockwise in ramp mode) or fall (go counterclockwise in ramp mode). It also controls how the parameters will behave with an expression pedal plugged in.

*Bounce:* When on (and no expression pedal), parameters will go *back and forth* (i.e. modulate), if it's off, parameters will ramp and hold.

*Lo-Fi:* This increases the delay time on the vibrato circuit, and has some other interesting side effects as well. In general, it makes stuff noisier and "goo-ier"

*MoToByp*: Momentary-to-bypass. If on, the pedal is only activated when the bypass stomp is pressed in.

*Tap Control*: "R" stands for ramp, "P" for parameter (RPM in this case). In the P position, tapping in a tempo will dictate the RPM rate. In the R position, tapping in the tempo will dictate the Ramp rate. This is great for modulating parameters. Remember, the "Bounce" dip switch needs to be on if you want to ramp parameters back and forth, rather than just ramping and holding.

*Tap Division*: In position "3" allows for 3, 6, 8 tap divisions. This is also important for selecting MIDI note divisions. More on that on the following page.

*Sweep*: this controls where ramp sweeps. In "T" (top) the ramping (or expression control) will occur between the current knob position and the max position (fully clockwise). In "B" (bottom) the ramping (or expression control) will occur between the current knob position and the minimum position (fully counterclockwise).

**NOTE:** It may seem overwhelming and difficult for users to take all this in at first. My suggestion is always to forget about the dip switches for a while when you get the pedal. Get to know the basic functionality of it, and then if/when you want to experiment with ramping or expression, it will likely be easier.

Some of these concepts are much easier to explain and demonstrate on video, and I have many tutorials available on my youtube channel at www.youtube.com/c/ChaseBlissAudio. I also love to hear from customers and answer questions so feel free to write me anytime at joel@chaseblissaudio.com. Thank you so much for purchasing this product and ENJOY!

**MIDI Configuration**
Warped Vinyl mkII allows all of its parameters to be controlled via control change messages, it's presets to be saved and recalled with program change messages, and its tempo controlled with MIDI clock messages.
To use MIDI with your Warped Vinyl mkII, you'll have to do the following:

1) Attach a Chase Bliss Audio Modified Empress Midibox "Ring Active" port using a standard ¼" TRS patch cable to the TAP/MIDI jack on your Warped Vinyl mkII. The Midibox is not included with the Warped Vinyl mkII. If you do not have a modified Empress Midibox, but a standard one from Empress, you need to use a custom TRS cable that flips the tip and the ring. See www.chaseblissaudio.com to purchase these items.
2) Warped Vinyl is set to MIDI channel 5 by default, but it is easy to change if you need to. If you want to change it, simply hold down both stomp switches when you provide power to the pedal (hold down TAP and BYPASS switches simultaneously) and then you can let go. The pedal is now looking for the first "Program Change" message it sees, and it will set itself to whatever channel it gets that first message from, permanently (until you change it again, of course).

**Recalling a preset via MIDI**
You can activate a preset by sending a MIDI Program Change message. For example, sending a Program Change message of 1 activates preset 1. There are 122 total preset slots available. Slots 1 and 2 are the presets that can be saved and activated directly from the pedal via the preset toggle. Slot 1 is the right slot, Slot 2 is the left slot. Sending a Program Change message of 0 puts the pedal in "Live" mode which is identical to when the preset toggle switch is in the middle position, in normal pedal operation. If you do not save something into presets 3 through 122, nothing will be recalled. There are no factory presets besides the two that come loaded in slots 1 and 2. The idea is for you to create your own.

**Saving a preset via MIDI**
You save a preset by sending a MIDI Program Change message while holding down both the TAP and BYPASS stomp switches. For example, sending a Program Change message of 45 while holding down both the TAP and BYPASS stomp switches will save your current settings to preset 45. There are 122 total slots. Slots 1 and 2 are the presets that can be saved and activated directly from the pedal via the preset toggle. Slot 1 is the right slot, Slot 2 is the left slot.

**MIDI Clock (aka MIDI Beat Clock)**
The Empress Tremolo2 will respond to MIDI Clock messages. MIDI Clock specifies quarter notes, subdivided into 24 MIDI Messages. By using the tap selection toggle, you can select different types of notes so that they correspond to 1 period of vibrato's waveform. On the tap division toggle first bank: 1 = whole note, 2 = half note, 4 = quarter. On the tap division toggle second bank: 3 = dotted eighth, 6 = eighth, and 8 = sixteenth note. I chose these notes as I thought they would be the most useful.

**Control Change Messages**
Warped Vinyl mkII can be controlled with MIDI control change messages. Below is a table that shows which MIDI control change channel controls each Warped Vinyl mkII parameter.

| Warped Vinyl mkII Parameter | CC# | Description: |
|---|---|---|
| Tone | 14 | Sending a value 0 would be equivalent to the knob being completely counter clock-wise, sending 127 is equivalent to fully clock-wise. All numbers in between correspond to knob positions in between those extremes. |
| Volume | 15 | |
| Mix | 16 | |
| RPM | 17 | |
| Depth | 18 | |
| Warp | 19 | |
| Ramp | 20 | |
| Midi Note Divisions | 21 | Sending value 0 sets divisions for whole notes, 1 for half notes, 2 for dotted eigth notes, 3 for quarter notes, 4 for eighth notes, and 5 for sixteenth notes. |
| Tap Switch | 93 | You can send any value with this CC#, it will simulate pressing down the tap switch. In short, it's a way to set tap tempo via midi. |
| Expression | 100 | Sending a value 0 would be equivalent to an expression pedal being completely "off", sending 127 is equivalent to a fully depressed expression pedal. All numbers in between correspond to knob positions in between those extremes. As always, the dip switches on the pedal select which parameter(s) are being controlled via expression |
| Bypass Switch | 102 | Sending a value of 127 engages the pedal, sending a value of 0 bypasses the pedal. Furthermore, sending a value of 127 with the pedal already engaged will reset any ramping that is happening, if any ramping is happening. |